

Fact Sheet



For Draft/Proposed Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on May 17, 2011.

Permit Number: **R30-04100011-2011**
Application Received: **May 17, 2011**
Plant Identification Number: **03-54-04100011**
Permittee: **Dominion Transmission, Inc**
Facility Name: **Kennedy Compressor Station**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Permit Action Number: *SM01* Revised: *Draft/Proposed*

Physical Location:	Valley Chapel, Lewis County, West Virginia
UTM Coordinates:	543.59 km Easting • 4328.71 km Northing • Zone 17
Directions:	Interstate 79 North to the Jane Lew Exit (Number 105). Turn right on County Route 7 and go 0.8 miles to Jane Lew, intersection of U.S. Route 19. Turn left on U.S. Route 19 and travel 4.7 miles to County Route 12(Jackson's Mill Road). Turn right on County Route 12 and travel 2.4 miles. Bear left and cross a narrow bridge to Jackson's Mill State 4-H Camp. County Route 12 changes to County Route 10 at this point. Proceed 0.6 miles to the intersection of County Route 1, turn left and go approximately 200 yards to Valley Chapel Road (County Route 10). Turn right and go approximately 1.3 miles. Turn left and cross a wooden plank bridge to the site.

Facility Description

Kennedy Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 1100 HP natural gas fired reciprocating engines,

one (1) dehydrator reboiler, one (1) dehydration unit, one (1) dehydration unit still flare and seven (7) storage tanks of various sizes.

This modification is to replace the existing Glycol Dehydration Unit (DEHY), rated at 14 million standard cubic feet per day (mmscfd), with a new Cameron Glycol Dehydration Unit (DEHY02), rated at 23 mscfd. The new natural gas-fired reboiler (RBR02) associated with the unit will be rated at 1.104 MMBtu/hr. Flare (F1) has been replaced with Model 100 flare (F2) rated at 4.0mmBtu/hr. The existing dehydration unit still (DEHY), reboiler (RBR01), and flare (F1) will be taken out of service.

Emissions Summary

The emission changes under this significant modification are as follows:

Pollutant	Annual Emission Change (tpy)
VOC	+9.39
CO	+0.04
NOx	+0.95
Benzene	+0.29
Toluene	+0.16
Ethylbenzene	+0.14
Xylene	-0.73
Hexane	+0.18

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 188.02 tons per year of NOx and 119.39 tons per year of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Dominion Transmission, Inc is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity Requirements for boilers
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur requirements for fuel burned
	45CSR13	Preconstruction permits for minor sources
	45CSR30	Operating permit requirement.
State Only:	40 C.F.R. 63 Subpart HH	NESHAP Natural Gas Production Facility
	40 C.F.R. 64	Compliance Assurance Monitoring
	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2837A	8/8/2011	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B" which may be downloaded from DAQ's website.

Determinations and Justifications

This Title V significant modification (SM01) includes the changes approved under R13-2837A, issued on August 8, 2011. R13-2837A was a construction permit for the replacement of the existing dehydration unit still, reboiler, and flare. Emission Unit IDs –DEHY, RBR01 and F1 have been removed and replaced with DEHY02, RBR02 and F2 in this permit.

- The affected emission units listed in section 5.0 of this permit have been replaced with DEHY02 and Flare F2. Sections 5.1.2, 5.1.4, 5.1.5, 5.1.6, 5.1.8, 5.3.1, 5.3.2, 5.3.3, 5.4.4, 5.4.5, 5.4.6, 5.4.7, 5.4.8, 5.5.1, 5.5.2 and 5.5.3 have been updated to incorporate changes from R13-2837A.
- Conditions 5.1.7, 5.1.9, 5.4.2 and 5.4.3 have been removed to incorporate changes from R13-2837A.
- Conditions 5.1.11, 5.1.14, 5.2.1, 5.2.2 and 5.4.10 through 5.4.12 have been added to this permit from R13-2837A.
- Conditions 3.1.12 and 3.5.10 have been removed as requested by Director/Secretary.
- In condition 5.1.1, the PM emissions calculation has been updated. The new flare is capable of 604lb/hr capacity based on the GLYCalc run for the gas composition and operating parameters.
- The emission units table was updated to include the new equipment(DEHY02, RBR02 and F2) and to delete the equipment that was removed (DEHY, RBR01 and F1).

40 CFR Part 63, Subpart HH

Permit condition 5.1.12 was added to incorporate the applicability date of 40 C.F.R 63, Subpart HH area source requirements.

Condition 5.1.10 was expanded to incorporate the general standards from 40 C.F.R. 63, Subpart HH as well as the specific glycol optimization standards of the Regulation. The exemption criteria was already incorporated within the previous Title V Permit.

Condition 5.1.13 was added to address implementing the glycol optimization requirement of 5.1.10 should the exemption criteria be exceeded.

Condition 5.1.15 has been added to ensure the compliance as a minor source of HAPs for MACT applicability purposes.

New monitoring language was incorporated within, 5.2.3, in order to provide a means of collecting operating data sufficient to demonstrate compliance with the emissions limits, minor HAP source status, as well as the 1 ton/yr benzene exemption threshold for subpart HH.

Section 5.3.5 has been added for sampling and analyzing the wet gas composition which will be used as input to GRI-GLYCalc in section 5.3.4.

Existing condition 5.3.4 for the subpart HH testing provisions was modified to include streamlining language stating that the requirement is satisfied by complying with the more specific requirements of 5.2.3 and 5.3.5 within the proposed permit. As a result, a new record keeping provision was added as 5.4.13. This requirement is to encompass keeping records of all supporting HAP determination data related to the GLYCalc emission estimation software run(s), which is designed to document and support the inputs to the estimating model.

Condition 5.5.4 was added in order to establish a means of demonstrating compliance via a self-monitoring report. This is determined necessary to maintain compliance with minor source applicability thresholds, the 45CSR13 permitted emission limits, and the 1 ton per year benzene exemption threshold from the 40 C.F.R. 63, Subpart HH Area Source provisions.

40 CFR 64 Compliance Assurance Monitoring (CAM) - The emission unit DEHY02 is a pollutant-specific emissions unit (PSEU) for VOC. PSEU meets all of the following applicability criteria in 40 CFR §§64.2(a)(1)-(3): it is subject to an emission limit for VOC (5.1.6); uses a control device (Flare F2) to achieve compliance with the VOC emission limit; and has potential pre-control device emissions of VOC greater than 100 tpy. Furthermore, the PSEU does not meet any of the exemptions given under 40 CFR §64.2(b) for VOC.

Existing condition 5.1.8.c of the permit requires operation of the Flare F2 with a flame present at all times whenever emissions may be vented to the flame. In order to demonstrate compliance with this requirement, existing condition 5.2.1. requires monitoring of the presence or absence of a flare pilot flame using a thermocouple or other equivalent device. Therefore, continuous monitoring of the detector signal that indicates the presence of the pilot flame will provide reasonable assurance of ongoing compliance with the VOC limit. Existing condition 5.2.1, and newly added conditions 5.2.4 through 5.2.9, 5.4.14, 5.4.15, and 5.5.5 contain the CAM requirements.

Monitoring per the CAM Plan will be as follows:

		PSEU DEHY02
		Indicator No. 1
I.	Indicator	Flare (F2) operation
	Monitoring Approach	Continuous monitoring of the pilot flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration is in operation.
II	Indicator Range	Indicator provides data regarding presence or absence of flame.
	A. QIP threshold	The permittee has chosen not to propose a threshold at this time since it is not required for this permitting action by 40 C.F.R. §64.8(a). Although the threshold is not required, the language for a QIP as it relates to other applicable requirements is set forth as permit condition 5.2.9.
III	Performance Criteria	The detector will be installed, as specified by the manufacturer, to sight the most stable part of the flare flame at all firing rates. The installation will be performed by a trained, experienced representative of the manufacturer.
	A. Data Representativeness	
	B. Verification of Operational Status	All manufacturer's recommendations regarding periodic testing/checks for the proper installation and operations of the flame detecting device will be followed.
	C. QA/QC Practices and Criteria	For the device that detects the presence of a flame; calibration, maintenance, and operation will be conducted in accordance with manufacturer's specifications.
	D. Monitoring frequency	Continuous
	E. Data Collection Procedure	Continuous, alarmed signal is sent to the control panel and recorded in <i>Mhealth</i> , Dominion's computerized data acquisition, monitoring, and statistical analysis system.
	F. Averaging Period	There is no averaging period since the flare pilot flame is either present or absent.

Non-Applicability Determinations

Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.

The facility potential emissions of each criteria pollutant, both before and after the modification, are less than the major source threshold of 250 tons/yr. Therefore, PSD permitting does not apply to the facility.

40 CFR Part 63, Subpart HHH

Since the facility is an area source of HAP and transports gas to a natural gas processing facility, 40CFR Part 63, Subpart HHH does not apply to the Kennedy Compressor Station.

40 CFR Part 64 Compliance Assurance Monitoring (CAM) for DEHY02 HAPs - The emissions of HAPs from DEHY02 are not subject to CAM because they are subject to 40 CFR Part 63, Subpart HH. Being subject to Subpart HH meets the exemption criteria at 40 CFR §64.2(b)(1)(i) for the affected HAPs. Table 1 of Subpart HH lists the specific HAPs that are subject to Subpart HH, and all of the HAPs that have limits in condition 5.1.6 are listed there. Therefore, all of the HAPs with limits in 5.1.6, which are emitted from DEHY02, are not subject to 40 CFR Part 64.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: November 30, 2011

Ending Date: December 30, 2011

All written comments should be addressed to the following individual and office:

Beena Modi
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.